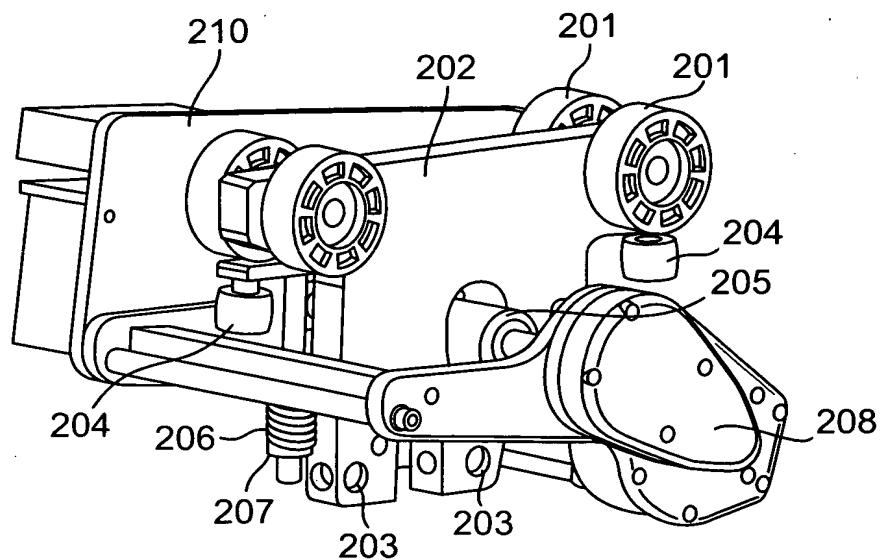
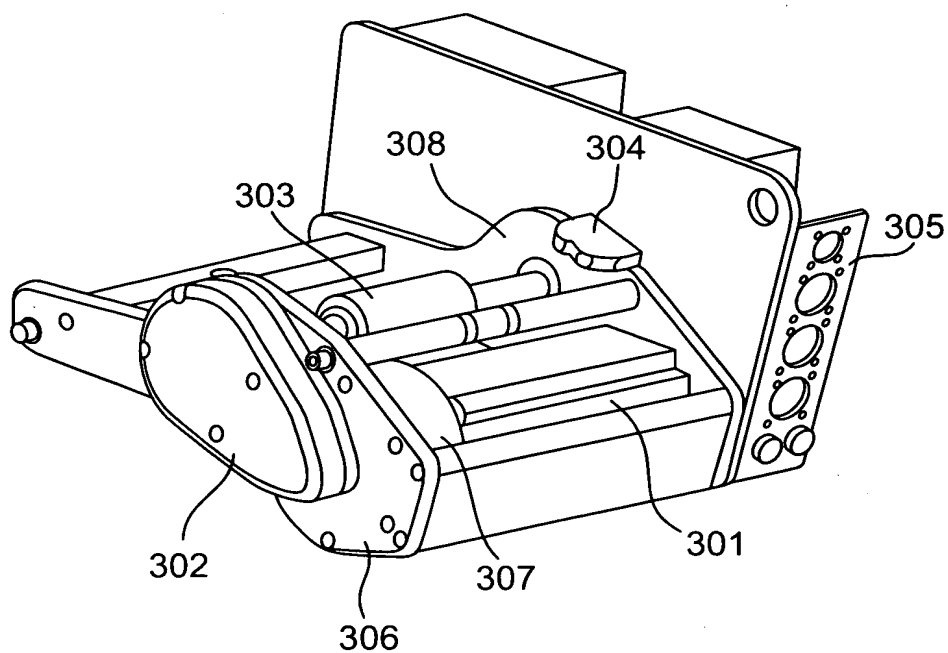


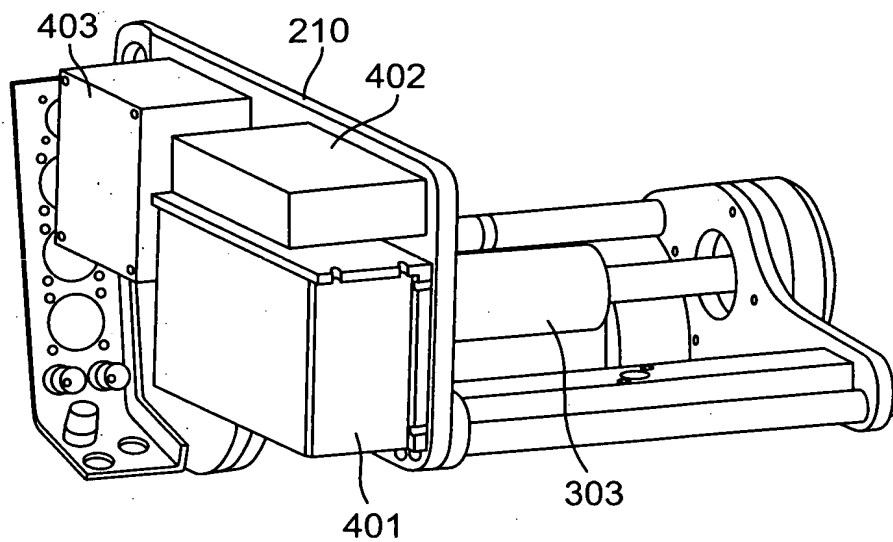
**FIG. 1**



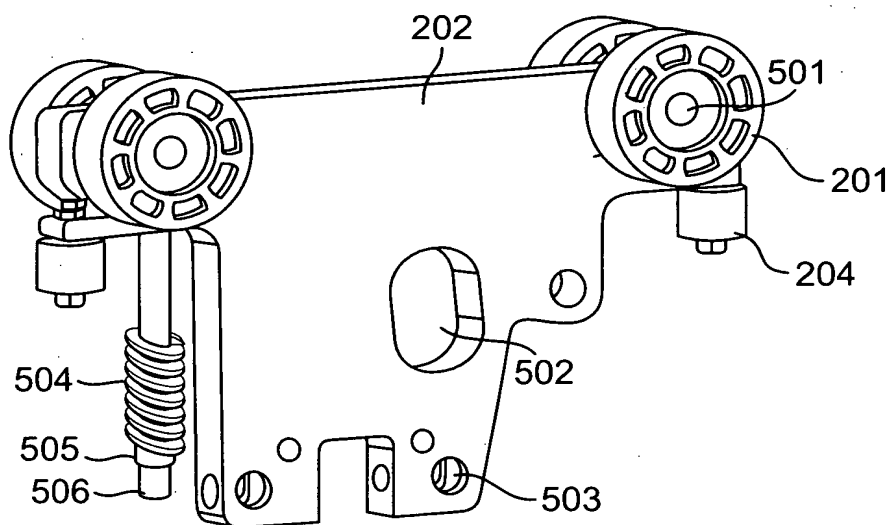
**FIG. 2**



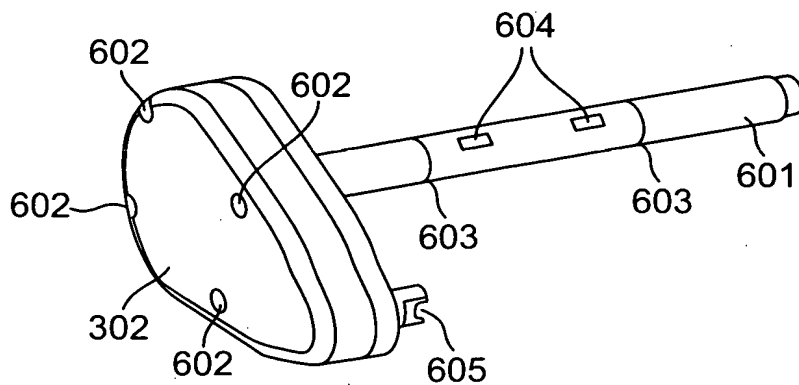
**FIG. 3**



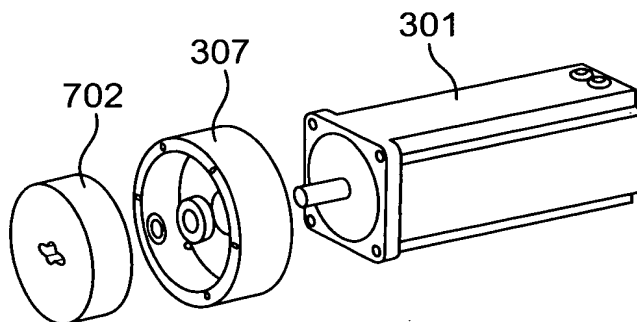
**FIG. 4**



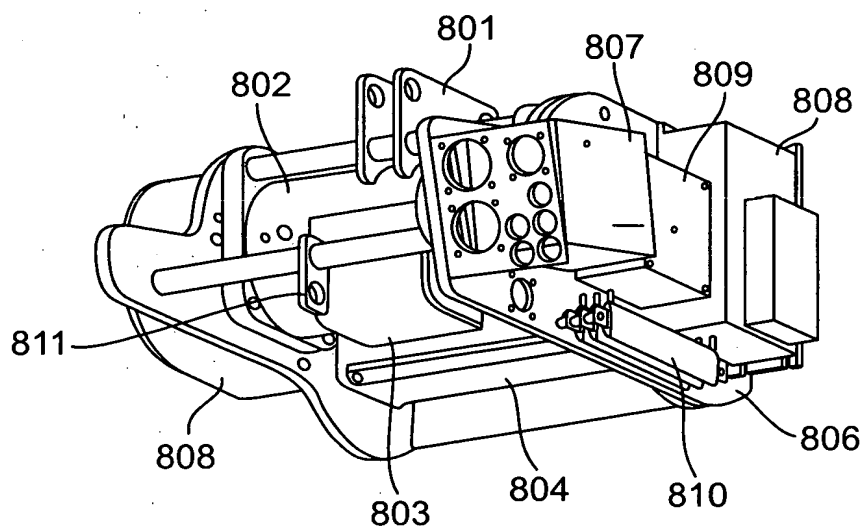
**FIG. 5**



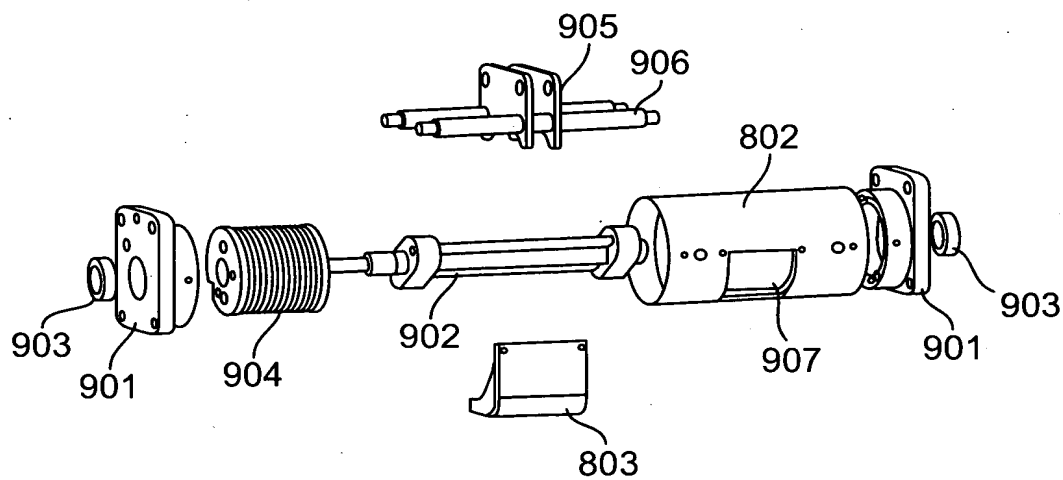
**FIG. 6**



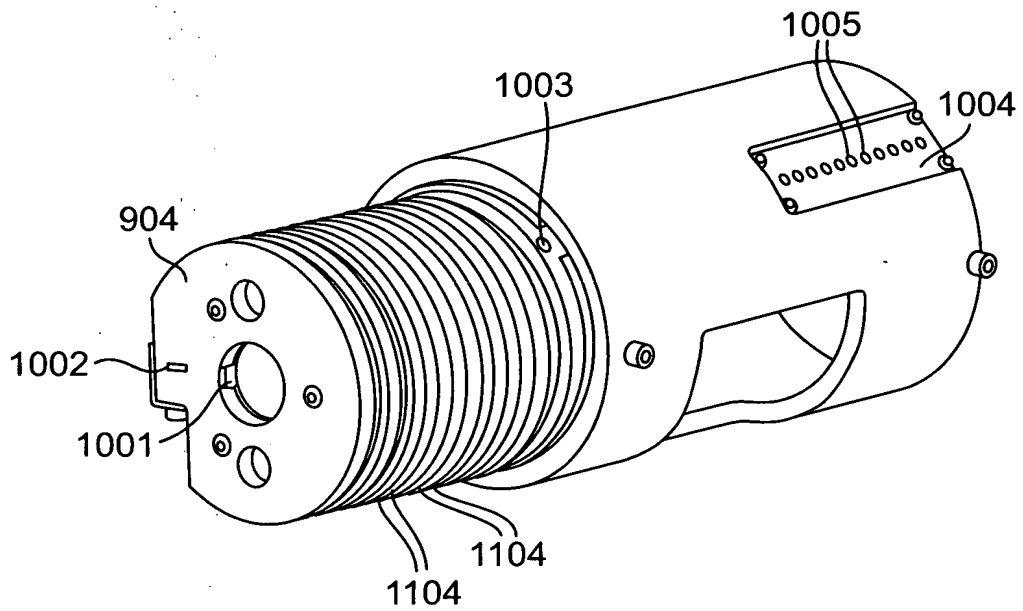
**FIG. 7**



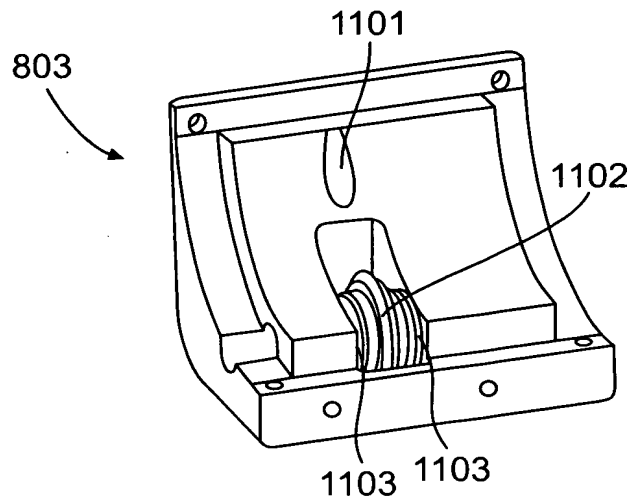
**FIG. 8**



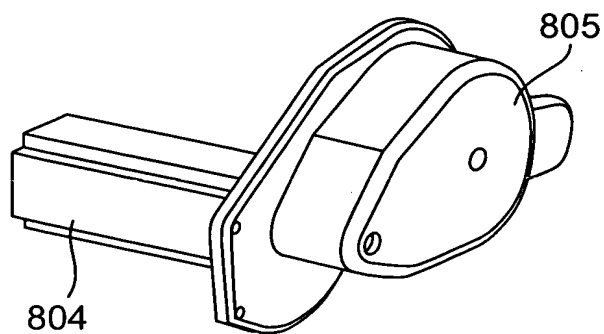
**FIG. 9**



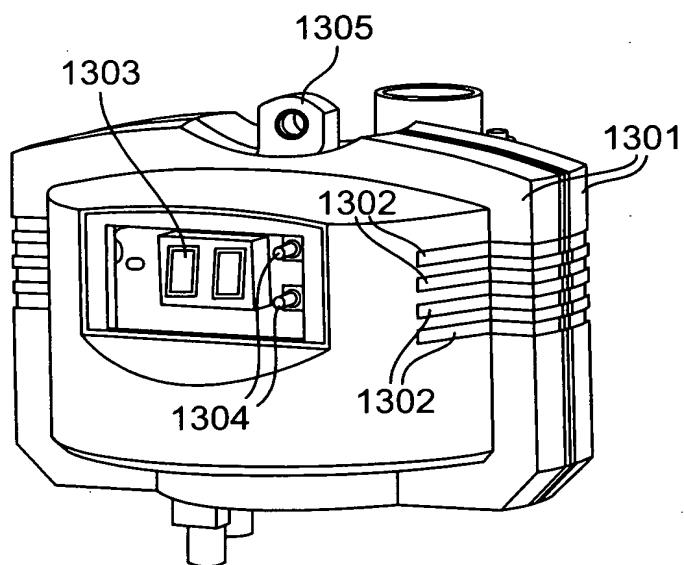
**FIG. 10**



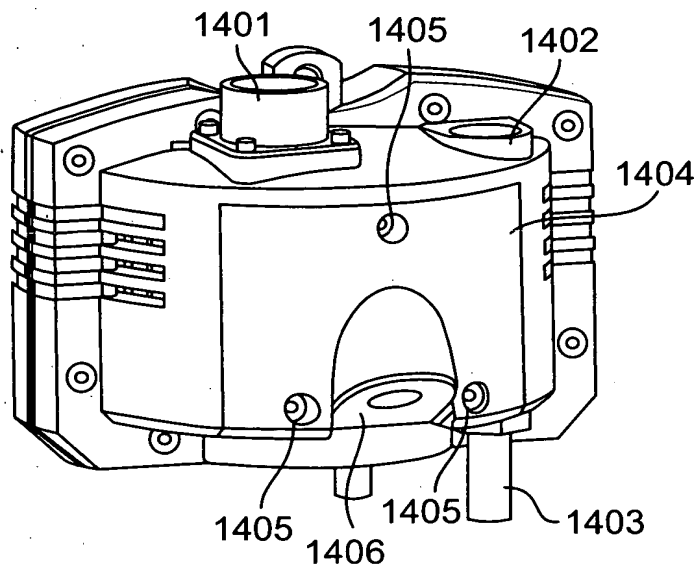
**FIG. 11**



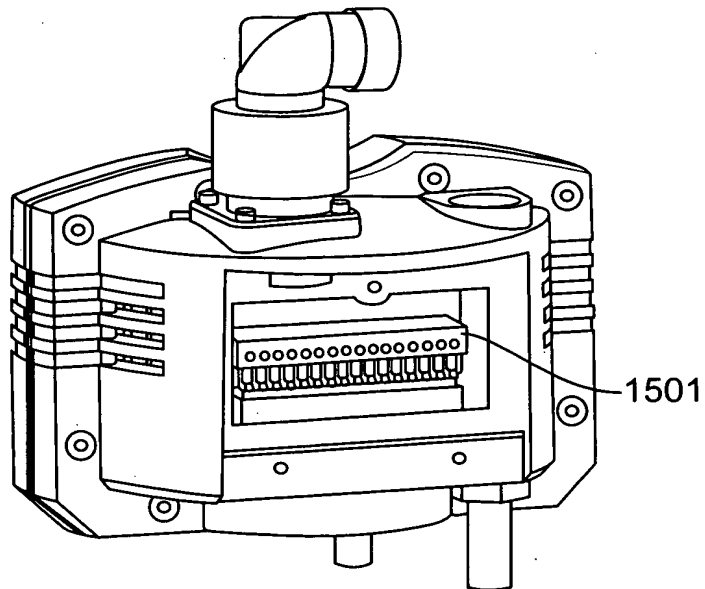
**FIG. 12**



**FIG. 13**

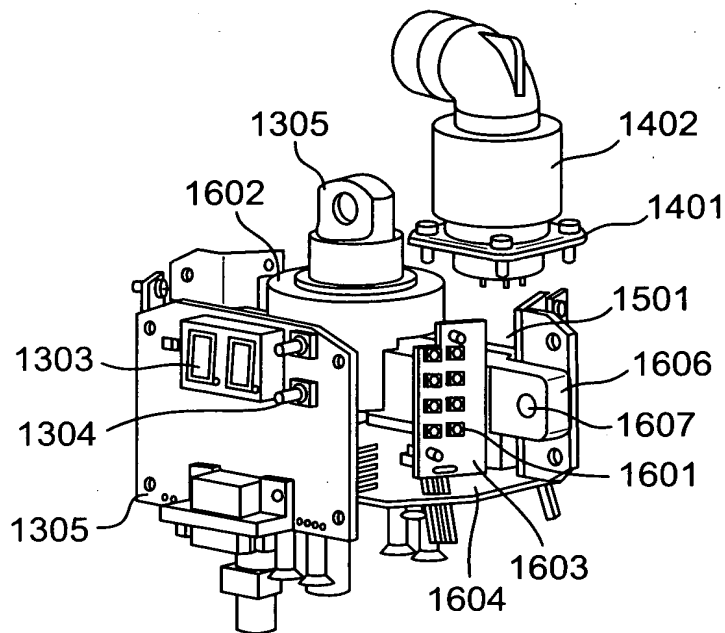


**FIG. 14**

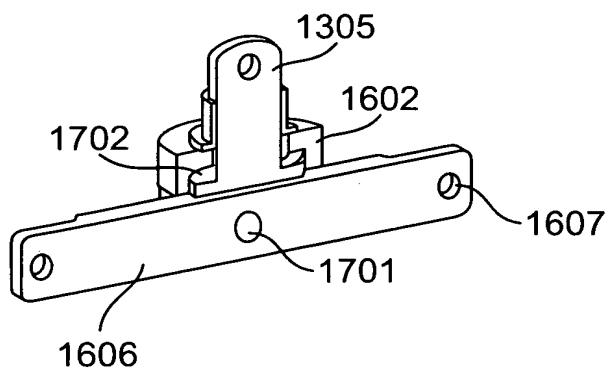


**FIG. 15**

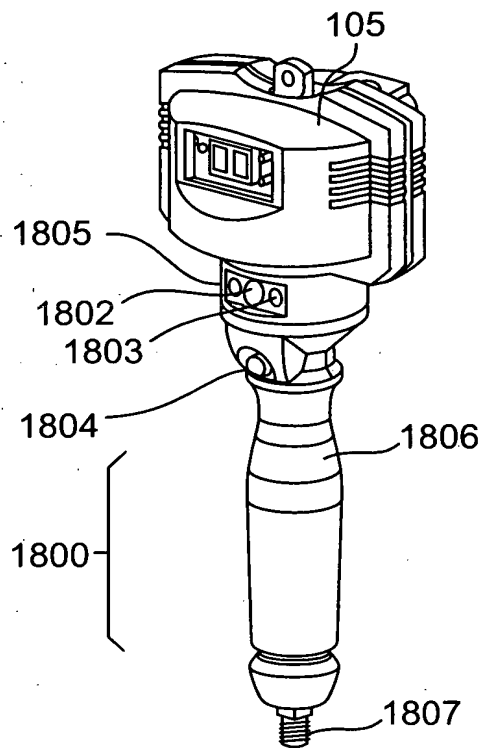




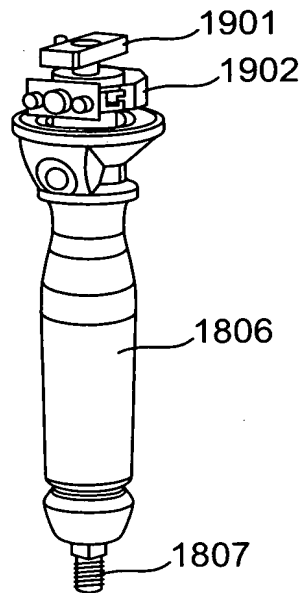
**FIG. 16**



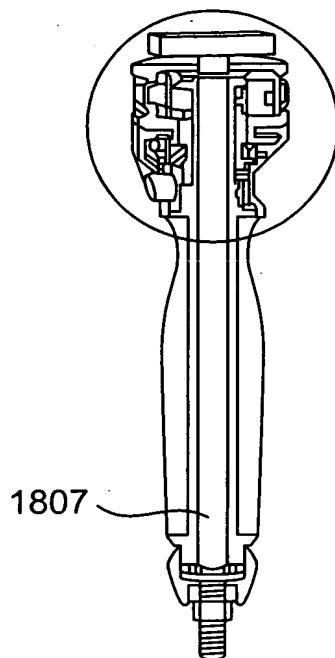
**FIG. 17**



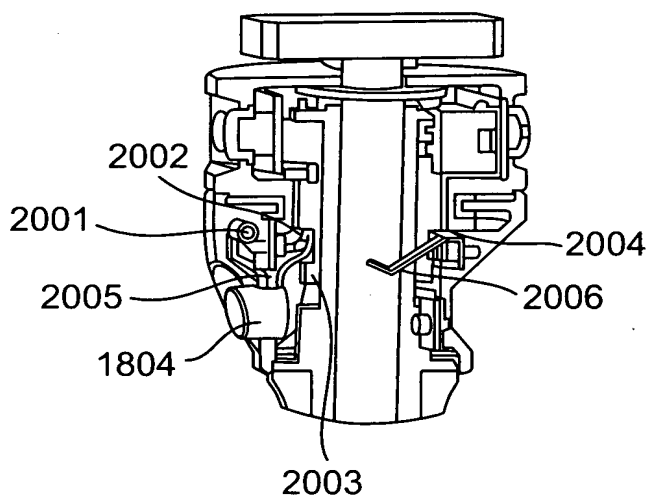
**FIG. 18**



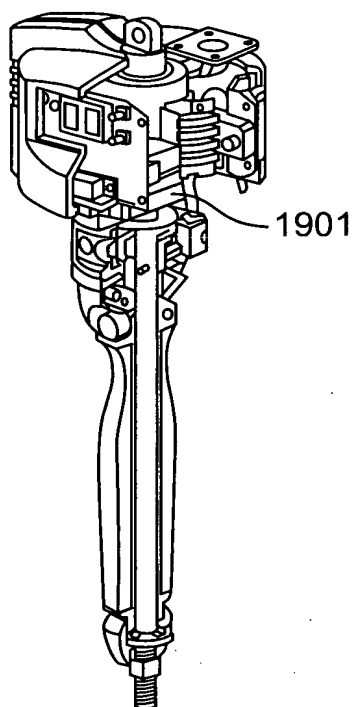
**FIG. 19**



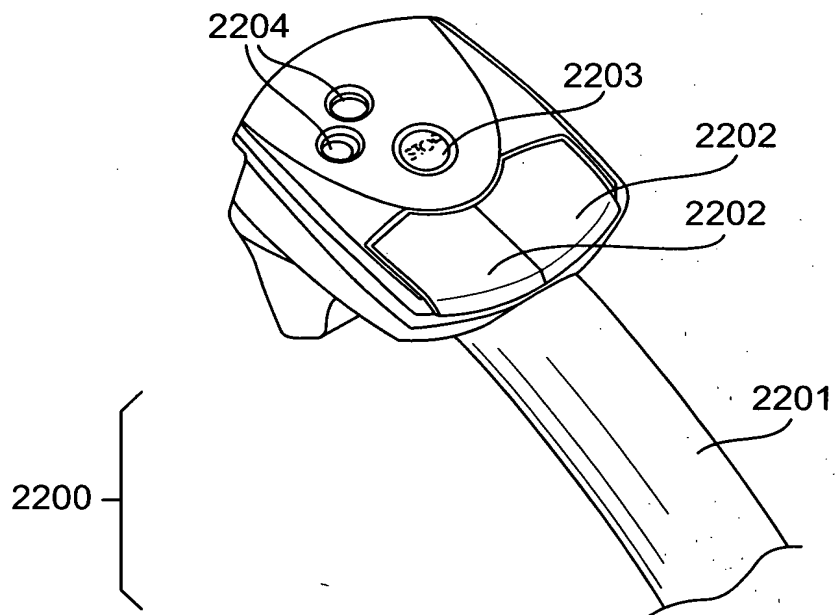
**FIG. 20A**



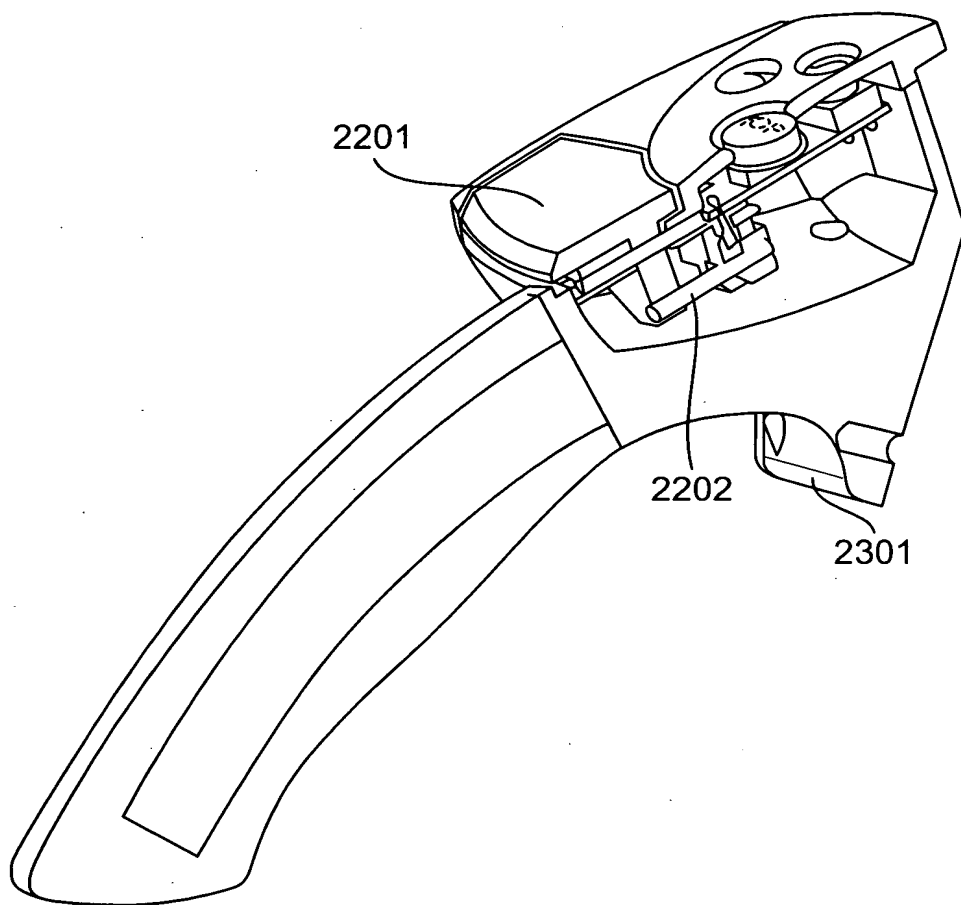
**FIG. 20B**



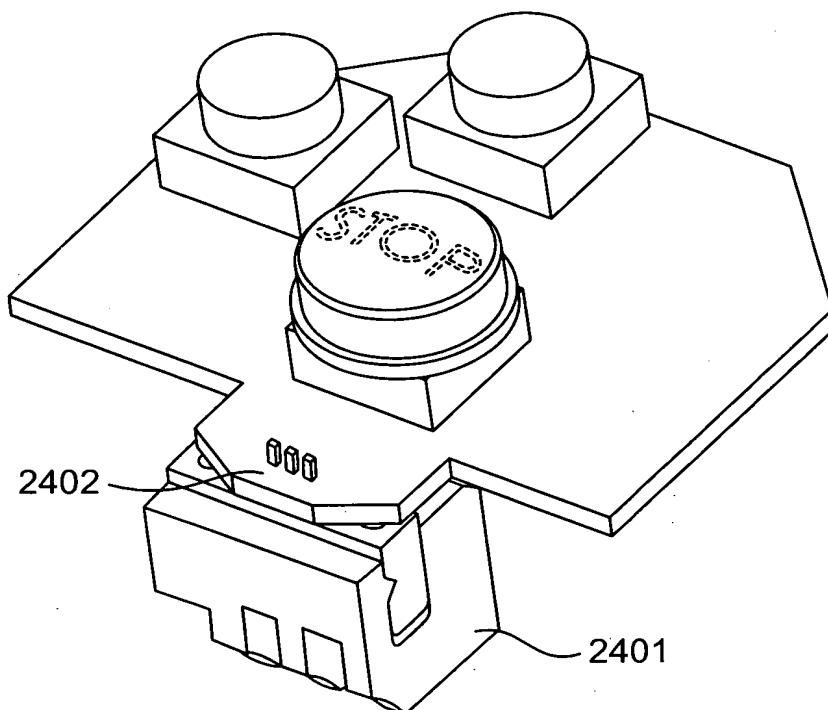
**FIG. 21**



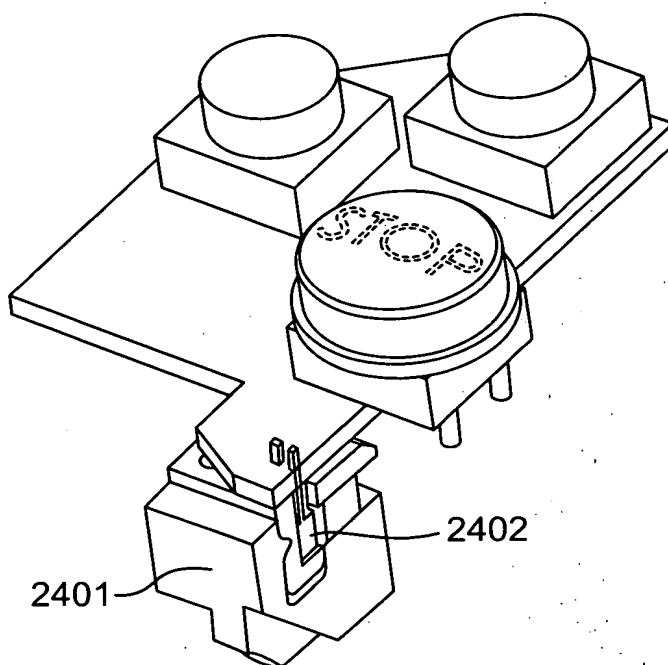
**FIG. 22**



**FIG. 23**



**FIG. 24**



**FIG. 25**



2601

COBOTICS CONFIG - NAME OF INSTALLED SYSTEM

FILE FILE COVER LAYOUT IDENT MOTION LIFT TROLLEY HUB-LOGIC PROFILES AUTO RETURN LOGGING

2604 2603 2603

PC-TO-HUB DATALINK ☐ CONNECT ☐ RX ☐ TX

SHOWING ACTIVE DATASET

NOTES

HERE YOU CAN KEEP NOTES ON THE SYSTEM, AND THESE NOTES ARE STORED ON THE EQUIPMENT, SO SOMEONE ELSE COMING ALONG WITH A DIFFERENT PC CAN READ YOUR NOTES.

2602

2602

2602

NAME OF INSTALLATION

NAME OF INSTALLER

LAST MOD DATE

NAME OF INSTALLED SYSTEM

STEVE KLOSTERMEYER

2/1/01

START TUDO NEC COB CC W W START PE/87 COB CAR 11:29 PM

FIG. 26



2702

LAYOUT PANEL  
DESIGNATE THE OVERALL LAYOUT OF YOUR SYSTEM  
CHECK THE BOXES OF  
COMPONENTS YOU HAVE

VERTICAL MOTION

☐ NONE 2701

☒ COBOTICS LIFT

☒ INLINE HANDLE 2701

☐ PENDANT HANDLE

☐ OTHER HOIST OR BALANCER

LATERAL MOTION

☐ NONE

☐ MONORAIL SYSTEM WITH POWERED  
MOTION ALONG MONORAIL

☒ XY RAIL SYSTEM WITH POWERED  
MOTION OF BRIDGE

☒ BRIDGE IS MOVED BY ITROLLEY ON  
CENTRAL RAIL

☒ ONE ITROLLEY

☐ TWO ITROLLEYS IN TANDEM

☒ CABLE ANGLE SENSOR

☐ PUSH-BUTTON ACTUATOR

☐ FORCE BAR

☐ COLUMN ROTATION SENSOR

☐ BRIDGE IS MOVED BY ITROLLEY ON  
RUNWAY RAIL

☒ MOTION ALONG BRIDGE RAIL IS  
ALSO POWERED

☒ ONE ITROLLEY

☐ TWO ITROLLEYS IN TANDEM

PC-TO-HUB DATALINK ☐ CONNECT ☐ RX ☐ TX

SHOWING ACTIVE DATASET

PLAN VIEW

ELEVATION VIEW

FIG. 27



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IDENTIFICATION PANEL

CLICK ○ TO LIGHT THE CORRESPONDING PHYSICAL UNIT, IN ORDER TO IDENTIFY WHICH IS WHICH. ASSIGN EACH UNIT ITS ROLE BY GIVING IT A LAYOUT CODES (REFER TO PICTURE FOR LAYOUT CODES). THIS PANEL REQUIRES AN ACTIVE DATALINK.

PC-TO-HUB DATALINK ○ CONNECT ○ RX ○ TX

SHOWING ACTIVE DATASET

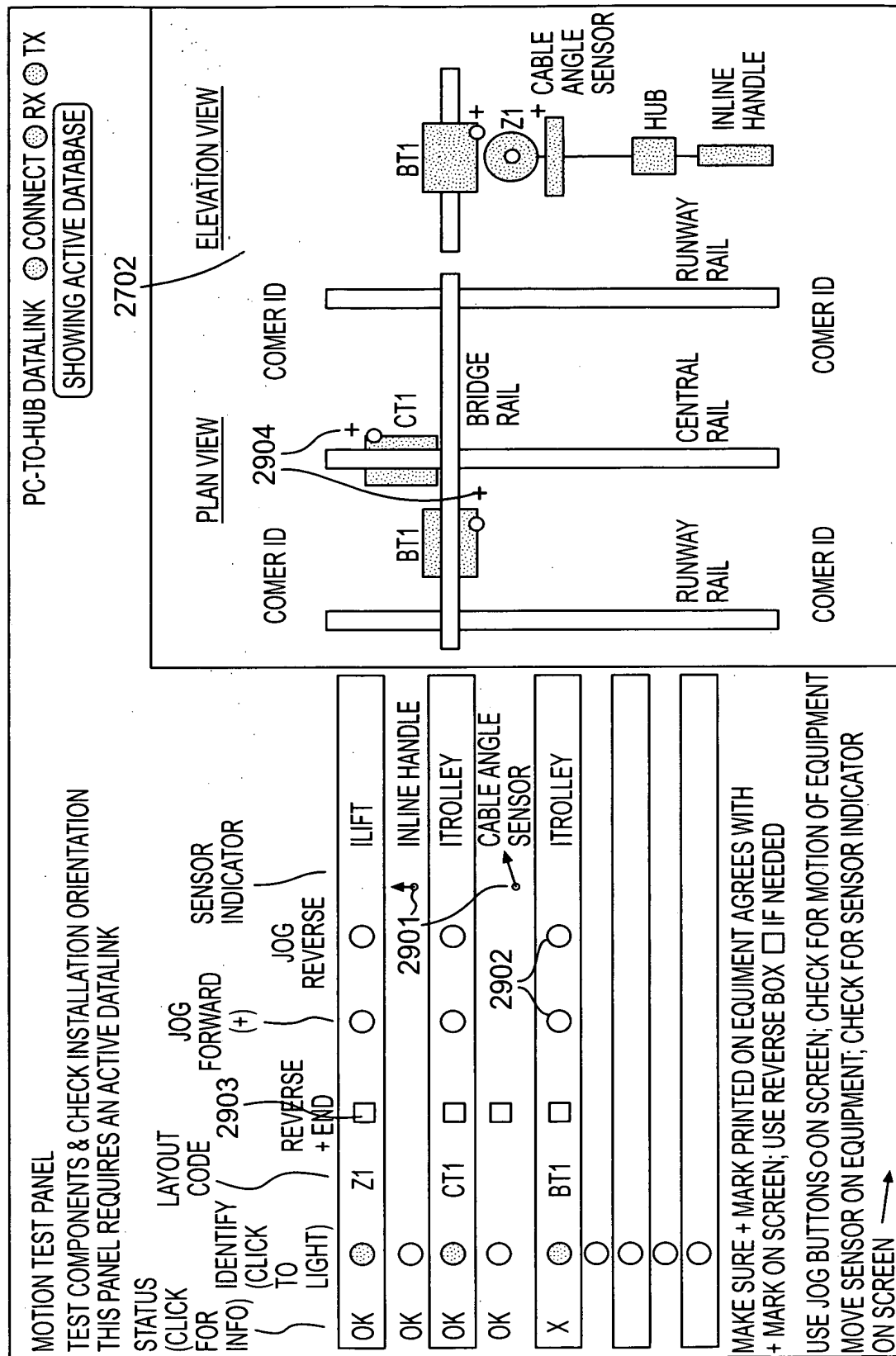
2702

UN-REGISTERED INFO)	STATUS	IDENTIFY (CLICK TO LIGHT)	LAYOUT CODE	SERIAL	DESCRIPTION
2806	OK	<input type="radio"/>	Z1	000123	ILIFT
	OK	<input type="radio"/>			INLINE HANDLE
	OK	<input type="radio"/>	CT1	000124	ITROLLEY
	OK	<input type="radio"/>			CABLE ANGLE SENSOR
2805	X	<input checked="" type="radio"/>	BT1	000125	ITROLLEY
		<input type="radio"/>			
		<input type="radio"/>			
2801		<input type="radio"/>		2804	
		<input type="radio"/>			
		<input type="radio"/>			

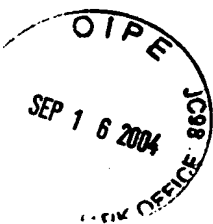
PLAN VIEW

ELEVATION VIEW

FIG. 28



**FIG. 29**



ILIFT SETUP PANEL

PC-TO-HUB DATALINK ☐ CONNECT ☒ RX ☐ TX

SHOWING ACTIVE DATASET

3001

SPEED LIMIT

UPWARD

DOWNWARD

1.25 M/S

1.25 M/S

(DOWNWARD SLAVES UPWARD)

3002

SET VALUE

LEARN

INSTANTANEOUS VALUE

ACCELERATION LIMIT

UPWARD

DOWNWARD

1.25 M/S<sup>2</sup>

1.25 M/S<sup>2</sup>

(HIGHER VALUES ARE PERKIER)

HANDLE

SENSITIVITY

1.25

DEADBAND

1.25%

NULL

1.25

3003

3005

3004

3006

"LEARN" WHEN WHEN HANDLE IS AT NULL POSITION

MOTION STOPS

UPPER

LOWER

1.25 M

1.25 M

2.1234

2.1234

FIG. 30

3100



LATERAL MOTION SETUP PANEL		PC-TO-HUB DATALINK <input type="radio"/> CONNECT <input type="radio"/> RX <input type="radio"/> TX	
SHOWING OFFLINE DATASET			
SET VALUE		← LEARN	← INSTANT VALUE
SPEED LIMIT	<input type="text" value="1.25 M/S"/>		
ACCELERATION LIMIT	<input type="text" value="1.25 M/S&lt;sup&gt;2&lt;/sup&gt;"/>		
ESTIMATE OF MOVING MASS ON BRIDGE	<input type="text" value="1.25 KG"/>	<input type="radio"/>	MEASURE IT BY JOGGING BRIDGE
ESTIMATE OF MOVING MASS ON CARRIAGE	<input type="text" value="1.25 KG"/>	<input type="radio"/>	MEASURE IT BY JOGGING CARRIAGE
ESTIMATE OF BRIDGE LENGTH	<input type="text" value="1.25 M"/>	<input type="radio"/>	MEASURE IT BY SKEWING BRIDGE
BRIDGE SKEW NULL	<input type="text" value="1.25"/>	<input type="radio"/> ← <input type="radio"/> JOG + <input type="radio"/> JOG -	JOE IT STRAIGHT; THEN "LEARN"
CABLE ANGLE SENSOR			
SENSITIVITY	<input type="text" value="1.25"/>		
DEADBAND	<input type="text" value="1.25%"/>		
NULL	<input type="text" value="1.25, 1.25, 5.00"/>	<input type="radio"/> ←	2.1234 LEAVE IT VERTICAL; THEN "LEARN"
FORCE BAR			
SENSITIVITY	<input type="text" value="1.25"/>		
DEADBAND	<input type="text" value="1.25%"/>		
NULL	<input type="text" value="1.25, 1.25, 5.00"/>	<input type="radio"/> ←	2.1234 DON'T TOUCH IT; THEN "LEARN"
END OF TRAVEL LIMIT RUNWAY (-Y)	<input type="text" value="1.25"/>	<input type="radio"/> ←	2.1234
END OF TRAVEL LIMIT RUNWAY (+Y)	<input type="text" value="1.25"/>	<input type="radio"/> ←	2.1234
END OF TRAVEL LIMIT BRIDGE (-X)	<input type="text" value="1.25"/>	<input type="radio"/> ←	2.1234
END OF TRAVEL LIMIT BRIDGE (+X)	<input type="text" value="1.25"/>	<input type="radio"/> ←	2.1234

FIG. 31



HUB LOGIC PANEL  
SPECIFY INTERLOCK FUNCTIONS (OR OTHER LOGIC) ON COBOTICS HUB

PC-TO-HUB DATALINK ☐ CONNECT ☐ RX ☐ TX  
SHOWING ACTIVE DATASET

3201

LOGIC FUNCTIONS

- ☐ (LOGIC 1) ACTIVATE PAYLOAD RELEASE (P1) SO LONG AS SWITCH S1 IS PRESSED
- ☐ (LOGIC 2) ACTIVATE PAYLOAD RELEASE (P1) WHEN SWITCH S1 IS PRESSED, BUT NOT IF INTERLOCK WEIGHT IS EXCEEDED. DE-ACTIVATE PAYLOAD RELEASE WHEN SWITCH S2 IS PRESSED.
- ☐ (LOGIC 3) ACTIVATE PAYLOAD RELEASE (P1) WHEN SWITCH S1 IS PRESSED, BUT NOT IF INTERLOCK WEIGHT IS EXCEEDED, AND NOT IF INTERLOCK HEIGHT IS EXCEEDED. DE-ACTIVATE PAYLOAD RELEASE WHEN SWITCH S2 IS PRESSED.
- ☐ (LOGIC 4) ACTIVATE PAYLOAD RELEASE (P1) WHEN SWITCH S1 IS PRESSED, BUT NOT IF INTERLOCK WEIGHT IS EXCEEDED, AND NOT IF INTERLOCK HEIGHT IS EXCEEDED. DE-ACTIVATE PAYLOAD RELEASE WHEN SWITCH S2 IS PRESSED.
- ☐ (LOGIC 5) ACTIVATE PAYLOAD RELEASE (P1) WHEN SWITCH S1 IS PRESSED. HOWEVER, IF INTERLOCK WEIGHT IS EXCEEDED OR INTERLOCK HEIGHT IS EXCEEDED, LOWER SLOWLY UNTIL THEY ARE NOT AND THEN RELEASE. DE-ACTIVATE PAYLOAD RELEASE WHEN SWITCH S2 IS PRESSED.

☐ CUSTOM LOGIC

3202

VIEW SELECTED LOGIC

3203

FIG. 32

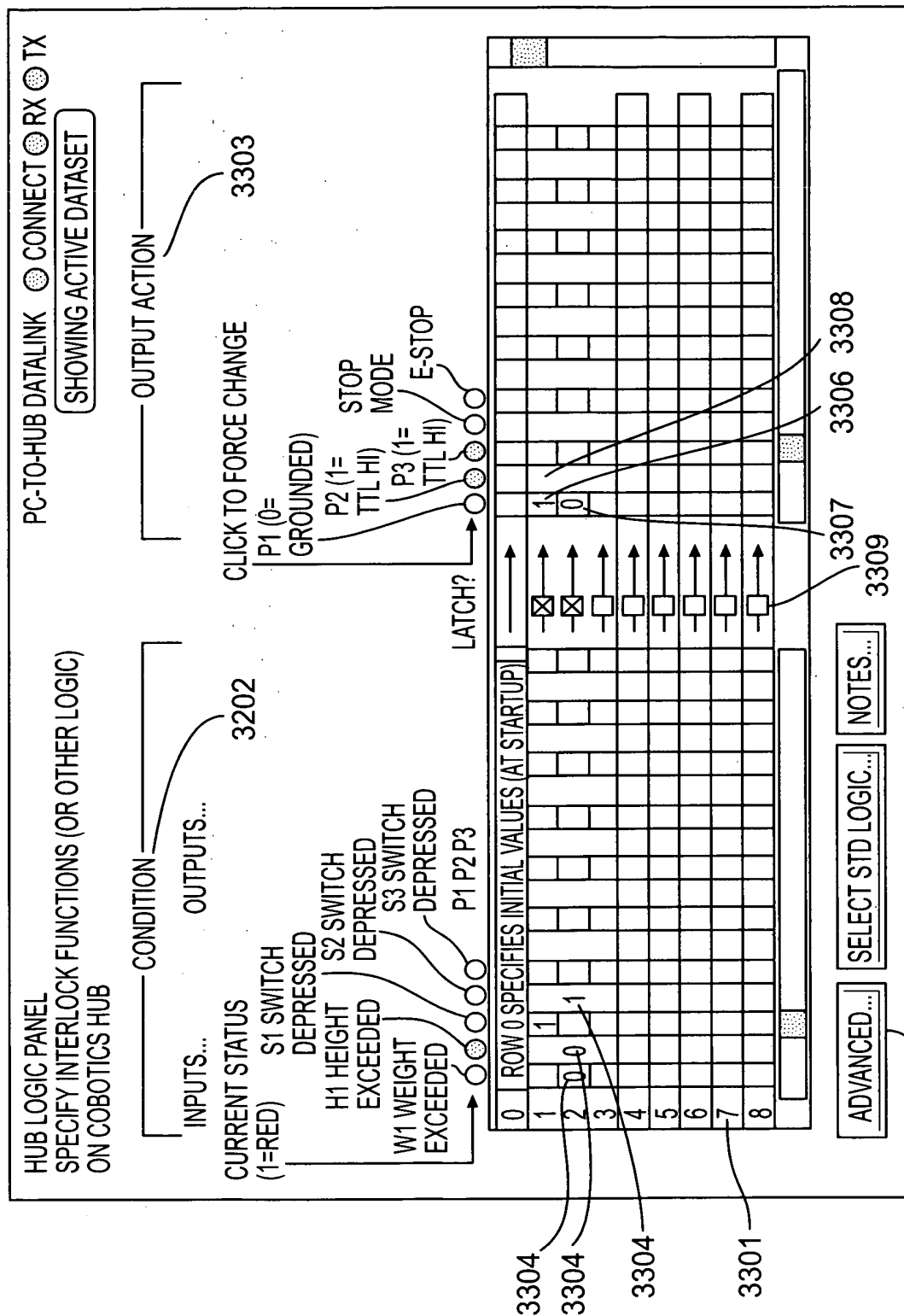


FIG. 33



PC-TO-HUB DATALINK ☐ CONNECT ☐ RX ☐ TX

SHOWING ACTIVE DATASET

PROFILES SETUP PANEL  
ALL SELECTIONS ARE SUBJECT TO OVERALL LIMITS,  
ON ILIFT & ITROLLEY PAGES — 3402 — 3401

PROFILE ID 3403	IMD	HI	SK
OWNER NAME	DEFAULT MEDIUM PROFILE	DEFAULT FAST PROFILE	STEVE KLOSTERMEYER
ILIFT SPEED LIMIT	MIN <input type="text"/> MAX	MIN <input type="text"/> MAX	MIN <input type="text"/> MAX
ACCELERATION LIMIT	MIN <input type="text"/> MAX	MIN <input type="text"/> MAX	MIN <input type="text"/> MAX
SENSITIVITY	MIN <input type="text"/> MAX	MIN <input type="text"/> MAX	MIN <input type="text"/> MAX
DEADBAND	MIN <input type="text"/> MAX	MIN <input type="text"/> MAX	MIN <input type="text"/> MAX
ITROLLEY SPEED LIMIT	MIN <input type="text"/> MAX	MIN <input type="text"/> MAX	MIN <input type="text"/> MAX
ACCELERATION LIMIT	MIN <input type="text"/> MAX	MIN <input type="text"/> MAX	MIN <input type="text"/> MAX
SENSITIVITY	MIN <input type="text"/> MAX	MIN <input type="text"/> MAX	MIN <input type="text"/> MAX
DEADBAND	MIN <input type="text"/> MAX	MIN <input type="text"/> MAX	MIN <input type="text"/> MAX

3404

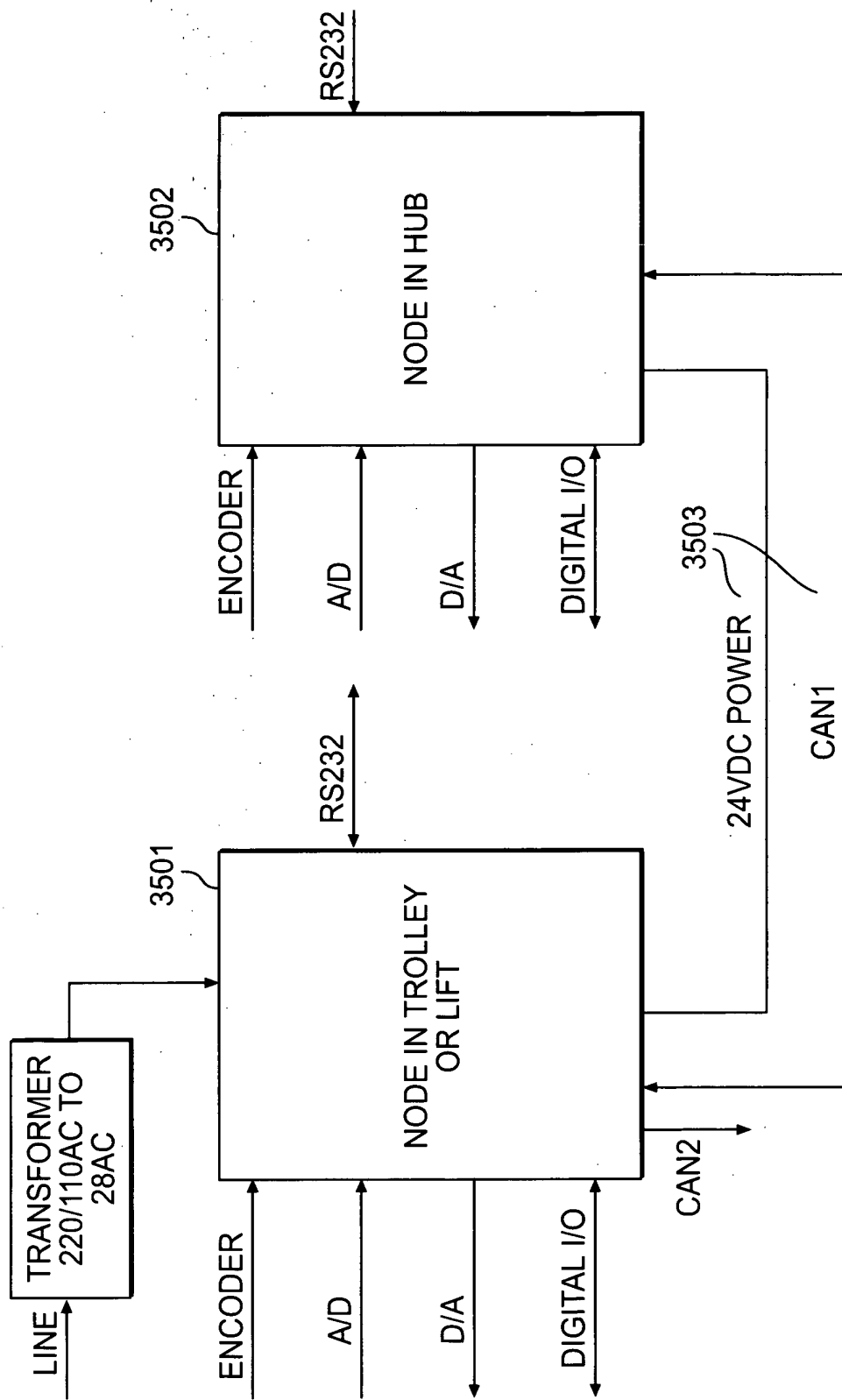
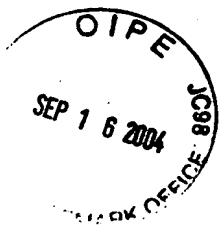
USE DEFAULT VALUES OLO ☐ OMD ☐ OHI USE DEFAULT VALUES OLO ☐ OMD ☐ OHI

☐ REMOVE PROFILE ☐ REMOVE PROFILE ☐ REMOVE PROFILE

☐ ADD NEW PROFILE ☐ ADD NEW PROFILE ☐ ADD NEW PROFILE

INSTRUCTIONS: OPERATORS CAN SELECT THEIR INDIVIDUALIZED PROFILE AT THE HUB. MOVE SLIDERS TO ADJUST FEEL. SLIDER VALUES ARE RELATIVE TO LIMITS SET ON THE ILIFT AND ITROLLEY SETUP PAGES. YOU CAN SET A PROFILE TO THE LO, MD OR HI DEFAULTS BY CLICKING A BUTTON.

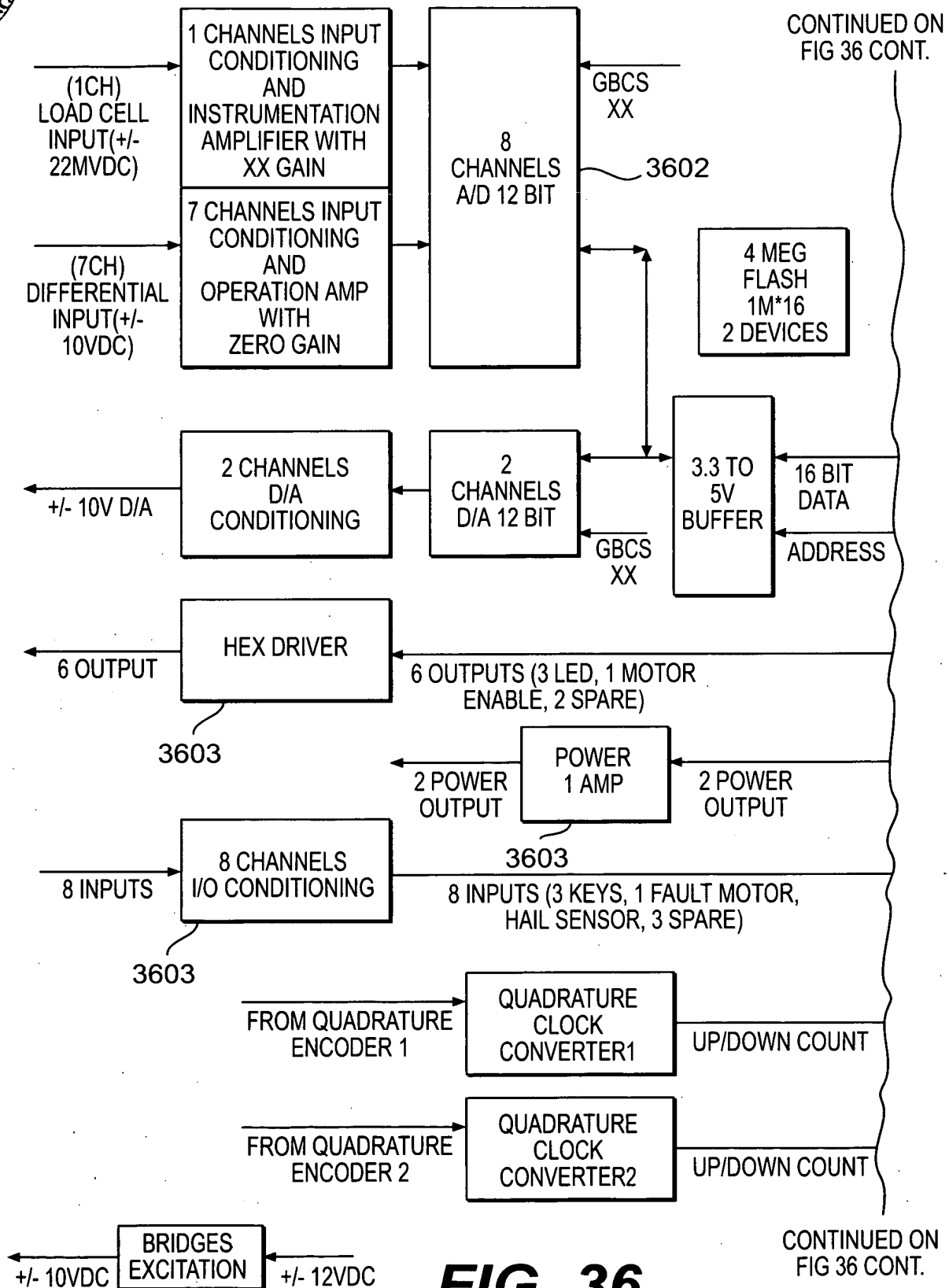
FIG. 34



**FIG. 35**



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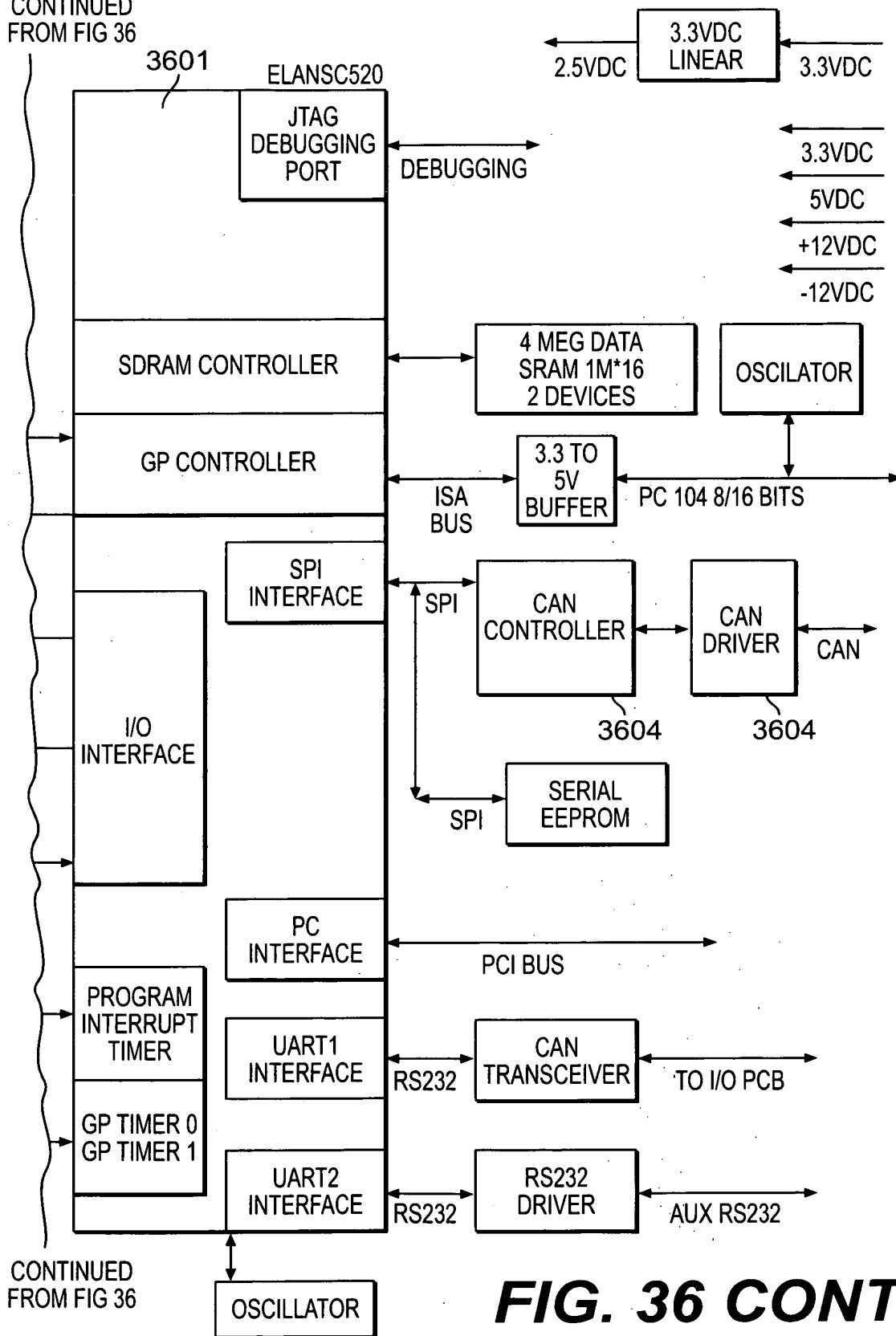


**FIG. 36**

CONTINUED ON FIG 36 CONT.



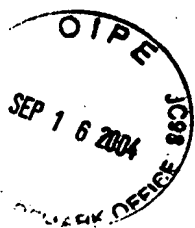
CONTINUED  
FROM FIG 36



**FIG. 36 CONT.**

[illegible]

FIG. 37



FIELD	SIZE (BYTES)	DATA FORMAT	DESCRIPTION
SIZE	1	BINARY	PACKET SIZE.
DEVICE_ID	1	BINARY	DESTINATION DEVICE ID.
CMD_TYPE	1	BINARY	COMMAND TYPE.
DATA	VARIABLE	BINARY	ACTUAL DATA ASSOCIATED WITH THE CMD_TYPE FIELD.
CHKSUM	1	BINARY	CHECKSUM OF PACKET. THIS BYTE EQUALS TO THE TWO'S COMPLEMENT OF THE SUM OF THE SIZE, DEVICE_ID, TYPE AND DATA, OMITTING ANY CARRY.

FIG. 38